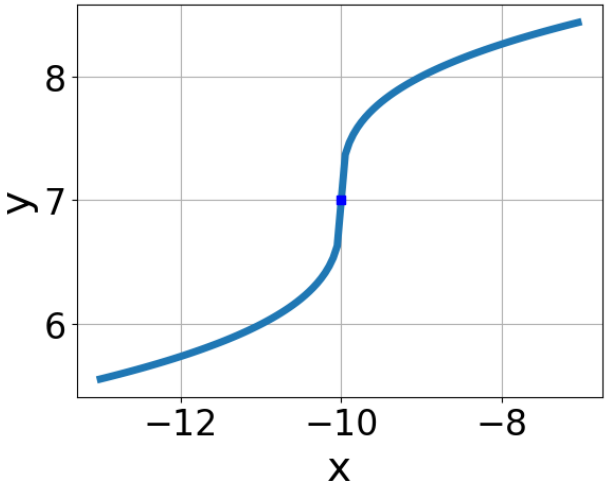
1. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x - 10} + 7$

B. $f(x) = -\sqrt{x - 10} + 7$

C. $f(x) = -\sqrt{x + 10} + 7$

D. $f(x) = \sqrt{x + 10} + 7$

E. None of the above

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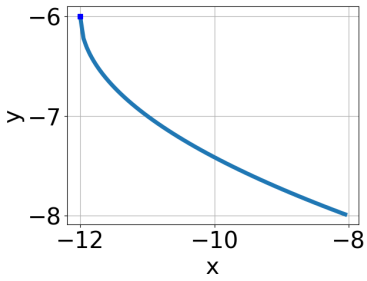
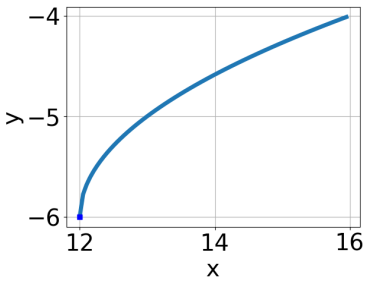
2. Choose the graph of the equation below.

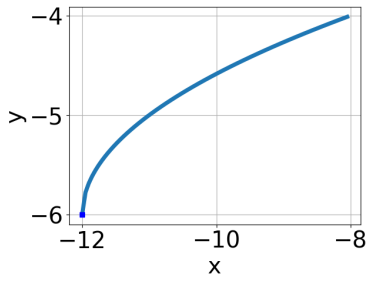
$$f(x) = -\sqrt{x - 12} - 6$$

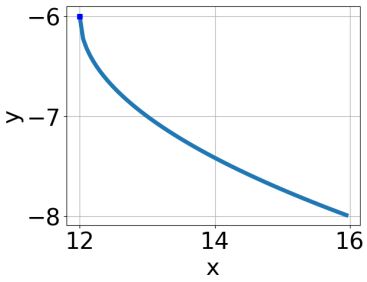
A.



B.



C. 

D. 

E. None of the above.

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3. What is the domain of the function below?

$$f(x) = \sqrt[8]{-4x - 5}$$

A. $(-\infty, a]$, where $a \in [-3.4, -1.1]$

B. $(-\infty, a]$, where $a \in [-1.1, 1.3]$

C. $(-\infty, \infty)$

D. $[a, \infty)$, where $a \in [-3.4, -1]$

E. $[a, \infty)$, where $a \in [-1.2, -0.3]$

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4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{54x^2 + 56} - \sqrt{-111x} = 0$$

A. $x_1 \in [0.68, 1.17]$ and $x_2 \in [0.6, 2.5]$

B. $x \in [-1.4, -1.13]$

C. $x_1 \in [-1.4, -1.13]$ and $x_2 \in [-1.2, -0.7]$

D. All solutions lead to invalid or complex values in the equation.

E. $x \in [-0.96, -0.86]$

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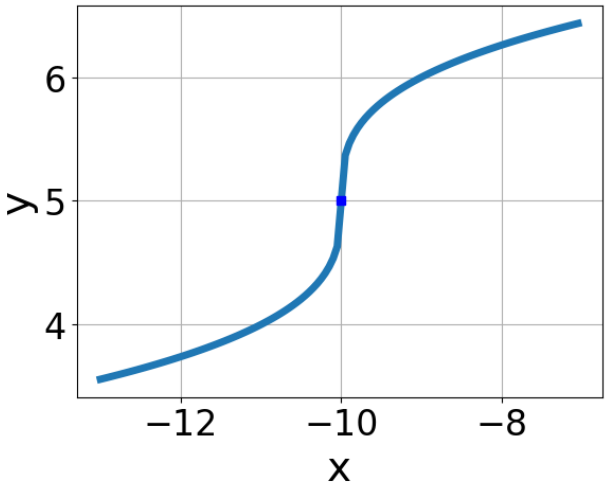
5. Choose the equation of the function graphed below.



A. $f(x) = \sqrt[3]{x-10}+5$

B. $f(x) = -\sqrt[3]{x+10}+5$

C. $f(x) = \sqrt[3]{x+10}+5$

D. $f(x) = -\sqrt[3]{x-10}+5$

E. None of the above

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6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-5x+3} - \sqrt{-2x-8} = 0$$

A. $x_1 \in [-1.3, 1.9]$ and $x_2 \in [2.67, 6.67]$

B. All solutions lead to invalid or complex values in the equation.

C. $x \in [-3.5, -0.8]$

D. $x \in [3, 4.1]$

E. $x_1 \in [-5.8, -3.9]$ and $x_2 \in [-1.4, 3.6]$

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7. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{6x^2-16} - \sqrt{4x} = 0$$

A. $x_1 \in [-1.44, -1.16]$ and $x_2 \in [-5, 3]$

B. $x \in [-1.44, -1.16]$

C. $x_1 \in [0.82, 1.38]$ and $x_2 \in [-5, 3]$

D. All solutions lead to invalid or complex values in the equation.

E. $x \in [1.48, 2.32]$

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8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{7x-5} - \sqrt{8x+5} = 0$$

A. $x_1 \in [-1.1, -0.15]$ and $x_2 \in [-1.29, 1.71]$

B. $x_1 \in [-10.3, -9.84]$ and $x_2 \in [-1.29, 1.71]$

C. $x \in [-10.3, -9.84]$

D. All solutions lead to invalid or complex values in the equation.

E. $x \in [-0.29, 0.45]$

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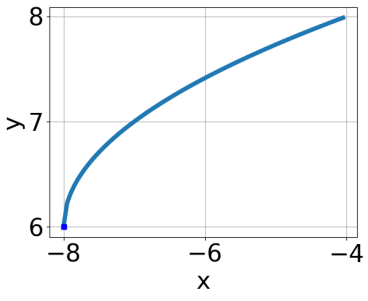
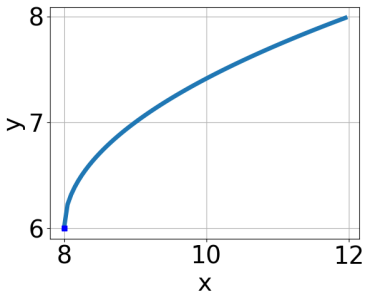
9. Choose the graph of the equation below.

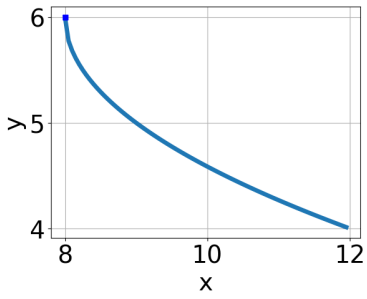
$$f(x) = \sqrt{x+8} + 6$$

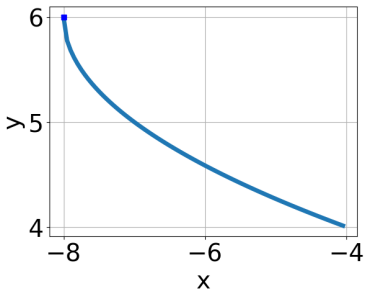
A.



B.



C. 

D. 

E. None of the above.

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10. What is the domain of the function below?

$$f(x) = \sqrt[4]{7x - 8}$$

A. $(-\infty, \infty)$

B. $(-\infty, a]$, where $a \in [1.1, 1.45]$

C. $[a, \infty)$, where $a \in [1.07, 1.19]$

D. $[a, \infty)$, where $a \in [0.7, 1.05]$

E. $(-\infty, a]$, where $a \in [0.37, 1.01]$
